

Development of Ceramic Membranes for Hydrogen Separation

Project Lead

East Tennessee
Technology Park -
Inorganic Membrane
Technology Laboratory
Oak Ridge, TN






Description

The purpose of this project is to develop methods for producing highly efficient gas separation membranes for separating hydrogen from gasified coal at temperatures of 500 °C or higher. The work is focused on alumina membranes having ultra-small pores for hydrogen separation.

Duration: 10/1/88 - 9/30/01

Methods of fabricating inorganic membranes on a production scale with a very sharp pore size distribution centered at about 5 Angstrom diameter will be optimized. For economic reasons, the membrane should have a large permeate flux. This implies maximizing the number of pores and minimizing the pore length or membrane thickness.

Product Support Areas

Gasification Technologies	Combustion Technologies	Sequestration	Environmental & Water Resources	Advanced Turbine & Engines	Fuel Cells
					



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